NOVEMBER 29, 1995

AT&T NEWS

NEWSBRIEFS

COMMUNICATIONS SYSTEMS AND TECHNOLOGY company announces its senior leaders. (Story page 3).

MCI SIGNED LETTERS OF INTENT with Network Systems Group, Ericsson and Northern Telecom to obtain wireless system equipment for its new package of turnkey wireless solutions called networkMCI WIN (Wireless Integrated Network).

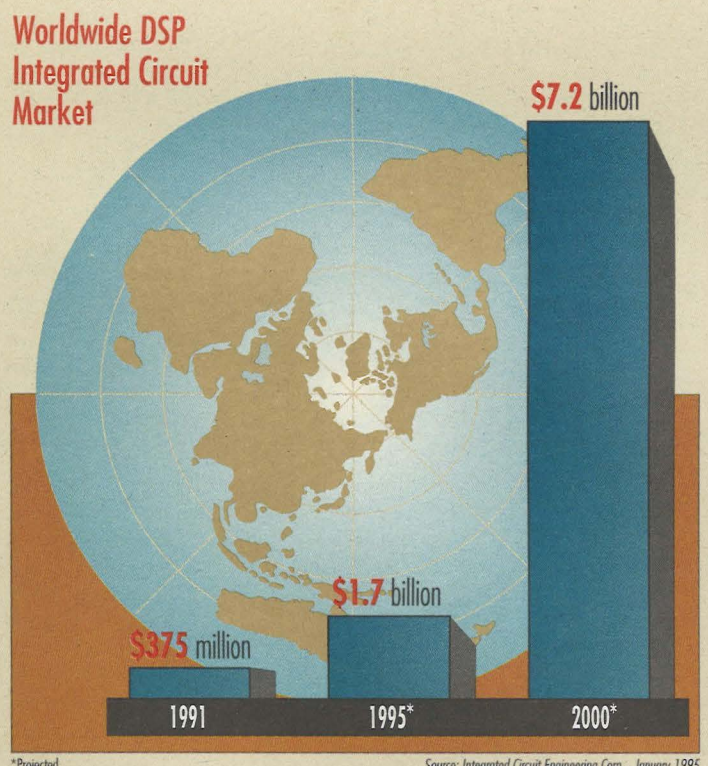
LARRY SEIFERT, vice president, Global Manufacturing and Engineering, was awarded the Eugene Merchant Manufacturing Medal by the American Society of Mechanical Engineers. The award honors exceptional individuals who influence and improve manufacturing operations.

BELL LABORATORIES DIRECTOR ALFRED Y. CHO, was awarded NEC Corp.'s C&C Prize. The award recognizes pioneers in the fields of computers and communications technologies. Cho was honored for his pioneering development of the molecular beam epitaxy crystal growth process.

IN MEMORIAM: David R. Chittick, former Environment and Safety vice *president and noted environmentalist, died Nov. 19 of cancer.*

MARKETPLACE

Statistics That Are Shaping AT&T's Future



INSIDENEWS

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Microelectronics To Help EPA Streamline Regulatory Process 7

AT&T Offers to Connect U.S. Schools to Internet

ROGER TULLY

Tom Evslin, vice president, AT&T WorldNet Services, demonstrates the Learning Network's capabilities to Venus Flores and Chris Quesada at the New York City press conference announcing the program. Flores and Quesada are students at Intermediate School 71, Brooklyn, N.Y.

BY COLLINS YEARWOOD

FURTHERING ITS COMMITment to education to an unprecedented degree, AT&T Oct. 31 announced plans to spend $150 million over the next five years to bring the benefits of telecommunications—voice messaging, Internet access and more—to the nation's 110,000 elementary and secondary public, private and parochial schools.

Implementation of the ambitious initiative, dubbed the AT&T *Learning Network*, is set to begin next spring. The program will concentrate on two areas: technology and support for teachers, schools and communities.

"AT&T believes technology can enhance teaching and learning, but only if it's in the hands of well-prepared teachers and part of a broader effort to improve educational achievement of children," said Chairman Bob Allen at the press conference announcing the program.

AT&T will make available, at no charge, some of its newest services and extensive education support to every school in the United States. The company will provide each school free dial-up Internet service, browser software and 100 hours of free usage.

Free use of voice messaging mailbox service will be available by the fall of 1996. AT&T will choose 100 schools to receive a wireless system for two years of free on-campus cellular voice service and cellular phones.

The idea for the program emerged from a combination of sources that included Communications Services Group, Government Affairs and the AT&T Foundation. According to Woody Kerkeslager, vice president, Technology, Government Affairs, the time was right politically and technologically for this kind of initiative.

See AT&T page 7

Allen Opens Beijing Office

Chinese officials Lin Jinquan, vice minister, Ministry of Posts and Telecommunications, third from right, and Ma Zhengang, deputy director, Office for Foreign Affairs of the State Council, left, joined AT&T Chairman Bob Allen, AT&T China Chairman Bill Warwick, right, and AT&T China staff members in the grand opening of AT&T China's new Beijing office on Nov. 8.

Emphasizing AT&T's commitment to the China market following the company's recent restructuring announcement, Allen said, "However we are structured, our long-term commitment to China will not waver. This building is a symbol of that commitment." More than 300 employees are based in the facility. ■

AROUND AT&T

ORACLE JOINS AT&T ON LINE

Leading database provider Oracle Corp. plans to integrate its Oracle WebSystem with the AT&T *WorldNet* Managed Internet System. The combination will help customers bring their existing database applications onto the Internet. AT&T WorldNet Managed Internet Service enables businesses to plan, operate, manage and maintain dedicated leased-line connections to the Internet. In addition to Internet service, customers receive expert implementation support and active monitoring of service levels, including problem diagnosis and resolution from AT&T. The two companies plan to jointly market the integrated offer through original equipment manufacturer distribution channels early next year. For more information, call 800-309-3349.

1996 GAMES CONNECTION

One lucky AT&T *True Connections* subscriber will win a trip for two to the 1996 Centennial Olympic Games in Atlanta next summer, just by making or receiving calls on his or her personal 500 or 700 number.

The all-expense paid, four-day, three-night trip includes airfare and AT&T guest tickets to popular events. True Connections residential subscribers become eligible just by making and receiving calls on their 500 or 700 numbers between Nov. 18, 1995 and Feb. 29, 1996. Every completed call counts as one entry in the contest.

In addition to the grand prize, AT&T will award 10 first-prize winners an AT&T Digital Cordless Telephone 9100. One hundred second-prize winners will receive a four-piece Olympic pin set. Winners will be selected at random.

FILM FESTIVAL

AT&T sponsored the 12th Israel Film Festival Oct. 19 to Nov. 2 in New York and Nov. 28 to Dec. 14 in Los Angeles. In addition to being a major sponsor of the festival, AT&T co-sponsored the student short-film competition with

Amblin Entertainment/Dreamworks. The festival in L.A. is being held in memory of the late Israeli Prime Minister Yitzhak Rabin.

NSG SWITCH WINS

Network Systems Group's *5ESS*-2000 Switch software project marked a milestone in its quality journey when it became the first software project to achieve Customer/Supplier Quality Process (CSQP) Recognition. CSQP Recognition is awarded by the Regional Bell Operating Companies, which choose suppliers that meet their comprehensive set of requirements for software and hardware product and process quality, customer support and customer satisfaction. Under the CSQP program, suppliers of telecommunications products partner with their customers to work toward quality accomplishments with continuous improvement.

FAMILIES, MINORITIES FAVOR AT&T

AT&T is earning high marks among women, families and minority constituents according to several publications. For the seventh time, AT&T made the cut for *Working Mother* magazine's annual listing of the top 100 best companies for working mothers. The listing was established in 1988, and AT&T is one of a few companies to have made the list every year. For the second consecutive year, AT&T was honored as one of the top 10 area companies for working families by *Central Florida Family Magazine*, the region's leading family advocacy publication, which is published by *The Orlando Sentinel*. Other publications to recognize AT&T for being a good place to work include *Hispanic Business* magazine and *Black Enterprise* magazine.

IMAGINE THIS OFFER ImagiNation Network (INN), the leading provider of on-line games and entertainment, is offering AT&T employees a 50 percent discount for the first three months of membership. Employees receive five hours per month for $4.95 along with INN's free software upgrade. The new release features more than 30 interactive multiplayer games, including Football Online, the first multiplayer football game available in an on-line environment. To get the free software and the Welcome Plan discount offer, complete an on-line form by subscribing to the AT&T Mail shared folder: !imagination:form or call 800-331-1325 by Dec. 31. Be sure to refer to Source Code 4009.

BUSINESS WOMEN APPLAUD AT&T

The National Foundation for Women Business Owners (NFWBO) has awarded AT&T its highest level of recognition, the NFWBO Distinguished Patron Award, for AT&T's ongoing support of women business owners and their organizations. This award was presented to honor AT&T for its strong commitment to the continued success of women business owners, who number 7.7 million in the United States. NFWBO is the research and leadership development foundation established by the National Association of Women Business Owners (NAWBO). AT&T Small Business Markets has successfully partnered with NAWBO/NFWBO for more than five years and has a "Profit By Association" agreement with them, whereby their members receive discounts on AT&T products and services. AT&T also was instrumental in procuring office space for these organizations, whose national operations are based outside Washington, D.C.

UNIX AVAILABILITY Global Information Solutions has announced the availability of the UNIX® version of the Teradata Database System on its newly announced *WorldMark* 5100 Series enterprise servers. The Teradata DBS for UNIX allows users of the WorldMark 5100S symmetric multiprocessing and 5100M massively parallel processing systems to take advantage of the database system used by the world's largest commercial data warehouse customers. Called the Teradata DBS for UNIX Version 2 Release 1.1, the system will be generally available in February 1996.

UNIVERSAL CARD OF CHOICE

Universal Card Services (UCS) was ranked highest in overall customer satisfaction according to J.D. Power and Associates' 1995 Comprehensive Credit Cardholder Satisfaction Study. The nationwide survey of more than 7,200 credit cardholders covered the 48 major cards, including Gold, basic and reward card offerings from the top 21 credit issuers in the country. According to the survey, UCS ranked highest based on its performance in the two most critical drivers of satisfaction—the quality of its billing and payment process and point-of-sale processing, which involves issues such as extent of card acceptance, accuracy in posting changes and the speed of approval. Credit-card issuers finishing after UCS included Discover, Household Bank, Bank of New York and Bank One. In addition, UCS received Visa® U.S.A.'s Member Service Quality Award for the fourth consecutive year. UCS was recognized for having the best authorization approval rate by an issuer with annual Visa sales of $1.5 billion and above. UCS is one of 36 financial institutions from Visa's United States membership to have received awards in one or more of five service categories.

INDIA WEB SITE

Want to "tour" the Indian city of Jaipur? See the work of a contemporary Indian artist in a virtual art gallery? Locate an Indian restaurant in New York or a sari shop in Atlanta? Send a "cybercard" to someone in another part of the world? Visit AT&T India Horizons, Consumer Communications Services' new Internet Web site for Asian Indians and other India enthusiasts. AT&T India Horizons is located on the Internet's World Wide Web at http://www.att.com/indiahorizons and is linked to AT&T's home site at http://www.att.com.

ON-LINE NEWSPAPER

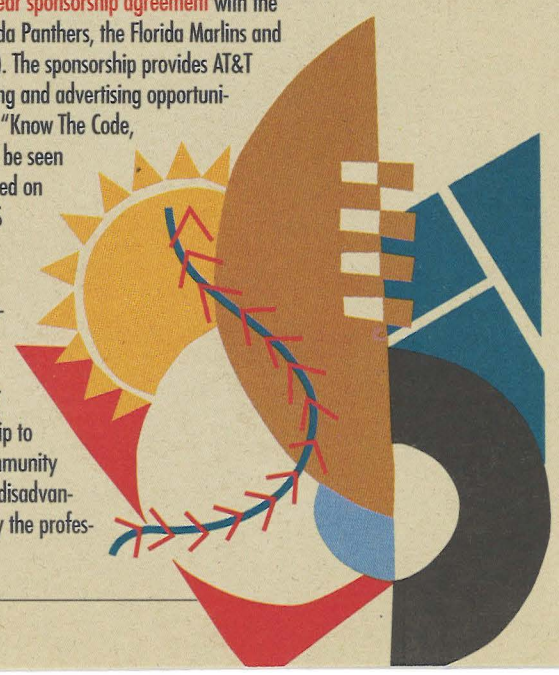
New Media Services and the Journal Register Company of Trenton, N.J., have agreed to create a major on-line presence using AT&T Interchange Online Network, a next-generation publishing platform that hosts a collection of specialized on-line services from independent publishers. The Journal Register's New Haven Register, Connecticut's second-largest newspaper, launched its on-line service, Register Online, in November. In addition to having access to local news, sports and other coverage, Register Online members will be able to take advantage of an array of discussion groups, electronic mail and searchable Register Online classifieds, as well as direct access to the resources of the Internet and the World Wide Web. The Journal Register Company plans to roll out additional newspaper services on the AT&T Interchange Network.

WIRELESS REACH

Wireless Services is offering a service that expands cellular-phone coverage to 35 countries beyond North America. Subscribers of AT&T Wireless Services' CellCard service would carry a small "smart card" when traveling. Customers can make or receive calls made to their U.S. cellular number by inserting the card into a GSM cellular phone, which can be rented or purchased from Wireless Services. Charges appear on the regular U.S. bill. The service currently is available for New York and Dallas customers and will be extended to most AT&T markets early next year. Subscribers pay an annual $49.99 fee, plus $2.49 a minute for outgoing calls, including long distance. For more information, call 800-335-4685.

SPORTS BACKER

AT&T has signed a multiyear sponsorship agreement with the Miami Dolphins, the Florida Panthers, the Florida Marlins and Joe Robbie Stadium (JRS). The sponsorship provides AT&T with a variety of marketing and advertising opportunities. For example, AT&T's "Know The Code, dial *1-800-CALL-ATT*" will be seen by millions as it is displayed on the TriVision screen at JRS and on the Panther's Zamboni ice-resurfacing vehicle. In addition to customer entertainment opportunities and other promotional events, AT&T plans to use its sponsorship to participate in various community activities such as inviting disadvantaged youngsters to enjoy the professional sports events.



The current headquarters of Bell Laboratories at Murray Hill, N.J., will be the headquarters of the systems and technology company.

Systems and Technology Company Names Officers

BY ED LOPEZ

THE NEW COMMUNICATIONS systems and technology company that will result from the restructuring of AT&T announced its senior leadership team on Nov. 20 and said its headquarters will be at the current Bell Laboratories headquarters in Murray Hill, N.J.

Each of the new company's operating units—Global Business Communications Systems, Microelectronics, Consumer Products and Multi-Media Ventures—will remain at their current locations. Network Systems Group (NSG) will continue its planned move to Warren, N.J.

"As a company driven by the needs of its customers and powered by the innovation of Bell Labs, it's appropriate that our headquarters be located where the technological innovation—one of our major differentiators in the marketplace—takes place," said Henry Schacht, chairman and chief executive officer-designate of the new company.

The appointment of Schacht, former CEO of Cummins Engine and a long-time member of the AT&T board of directors, was announced in early October. Also announced at the time was the appointment of Rich McGinn, executive vice president and CEO of NSG, as president and chief operating officer-designate for the new company.

A key step in the formation of the systems and technology company, one of three entities to be created by the breakup of AT&T, will be the initial public offering of stock scheduled to occur at the end of the first quarter or early in the second quarter of 1996. The name of the new company is expected to be announced in early 1996.

The $20 billion company will produce a range of public and private networks, systems and software, consumer and business telephone systems, and microelectronics. Bell Laboratories will serve as its engine for research and development.

"... it's appropriate that our headquarters be located where the technological innovation—one of our major differentiators in the marketplace—takes place ..."

—Henry Schacht

Key Appointments

Among key appointments, **Bill Marx** was named senior executive vice president of the new company. Marx, currently executive vice president and CEO of the Multi-Media Products Group, will continue integrating the Multi-Media organization into the new company and take the lead on several major issues and opportunities.

Marx will oversee the sale of Paradyne and complete the work of redirecting the Consumer Products business. Marx also will develop and build on a number of key international relationships.

"Bill's experience and leadership in this industry will be invaluable as we build this new company," Schacht said.

Dan Stanzione will continue as president of Bell Labs and take on the added role of president, NSG. He will report to Schacht as president of Bell Labs and will report to McGinn in his capacity as president of NSG. **Arun Netravali**, vice president of Research at Bell Labs, will continue to report to Stanzione.

"Dan and I believe that his new dual role, combined with locating the leadership of the entire business at Bell Labs, will bring new energy to our research efforts," Schacht said.

"The resulting closer link with the businesses will allow us to bring our technology from the lab to the customer with greater speed," he added.

Carly Fiorina, now president—North American Region, NSG, has been promoted to executive vice president, Corporate Operations, reporting to Schacht. Fiorina will have responsibility for strategy, business development, mergers and acquisitions, government affairs, public relations, investor relations, information systems, quality, new ventures, purchasing and global real estate.

In other appointments:

Rich Rawson, now vice president, Law, NSG, will be senior vice president and general counsel for the new company, reporting to Schacht.

Curt Artis, now vice president, Human Resources, NSG, will be senior vice president, Human Resources, for the new company, reporting to Schacht.

Kathy Fitzgerald, now vice president, Public Relations and Advertising, NSG, will be senior vice president, Public Relations and Investor Relations. Fitzgerald will report to Fiorina.

Reporting Relationships

In addition to Stanzione, reporting to Rich McGinn will be **Pat Russo**, president, Global Business Communications Systems, and **Curt Crawford**, president, Microelectronics. Both Russo and Crawford will continue in their current roles in the new company.

Russo and Crawford will report to McGinn immediately, while Consumer Products and Multi-Media Ventures and Technology will transition into McGinn's organization when appropriate.

The remaining members of the Multi-Media Products Group senior leadership team will continue to be supported by Marx as the transition continues.

All other appointments are effective on Jan. 1, 1996.

Executives reporting to Stanzione include:

Gerry Butters, now president, Global Public Networks, NSG, will be president, North American Region. Butters will be responsible for the customer business units that service the Regional Bell Operating Companies, GTE and independent telephone companies and cable companies, as well as the Network Systems business in Canada. He will also have oversight for marketing.

Jim Brewington, now president, Network Wireless Systems, will be promoted to president, Product Realization. He will be responsible for all product realization for NSG, including Global Public Networks, Network Wireless Systems, Network Cable Systems and Applications Software.

Bill O'Shea, who joined NSG in July as president of all international operations, will continue to lead NSG business outside the United States.

Joe Colson, now president of the business unit responsible for serving AT&T, will continue in that role.

The entire officer team named in the announcement will form the Executive Council of the new company.

"I feel very good about the depth and breadth of this management team," Schacht said. "I believe it will be one of our major assets as we become a publicly traded company." ■

AT&T to Provide Tools and Expertise for Business Growth

BY COLLINS YEARWOOD

COMPETITION DEMANDS that a company differentiate itself from current and future competitors. AT&T is meeting that challenge by introducing Marketing Tools for Growth, a comprehensive package of business tools for the medium-sized business.

"Through our research, we've found that the more successful companies are constantly seeking new ways to grow their business," said Tim Murray, director, Market Management, Business Communications Services. "By providing a program that helps them, we're investing in their success and in ours."

The program is the product of a number of marketing agreements that AT&T has entered into with a variety of leading companies.

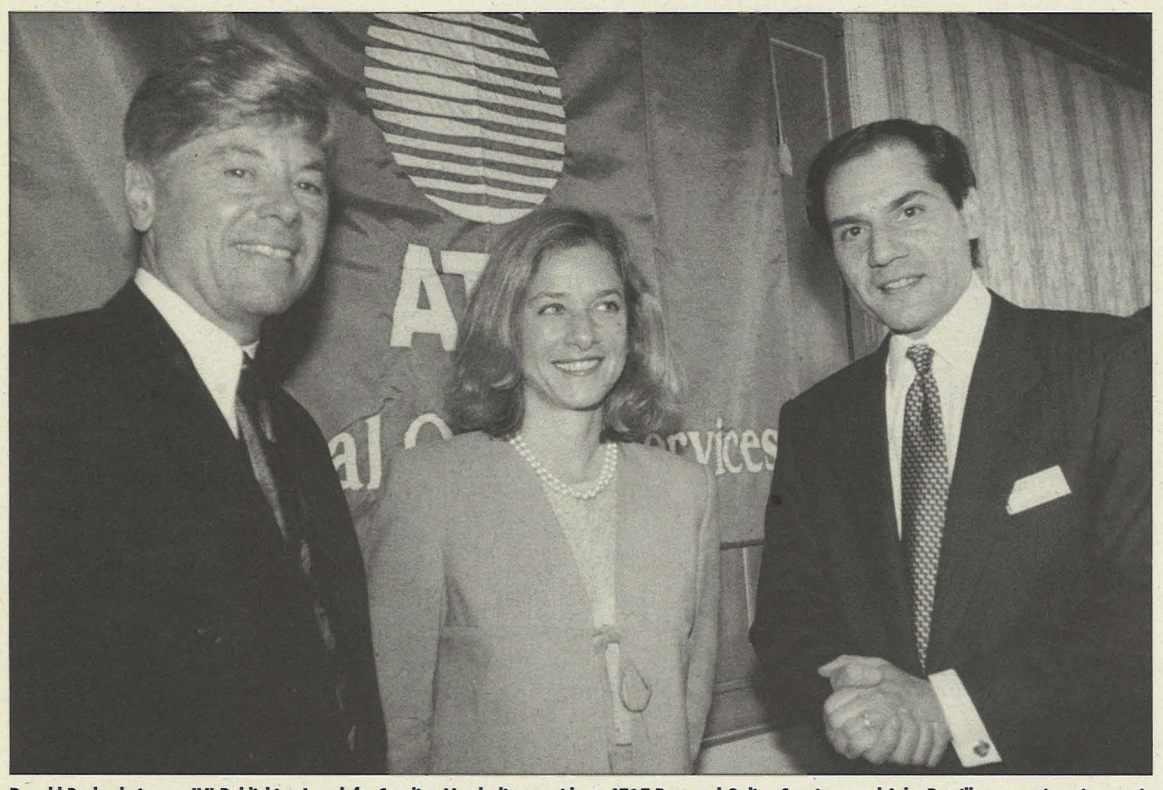
Purchasers of the package will receive discounts on products and services that can assist them in expanding into new markets or geographic territories, and reach them more effectively. The package costs $400 a year.

Working with companies such as Dun & Bradstreet and TRW, businesses can assess their existing customer base, target new markets, and obtain lead lists.

Once new markets are identified, the package helps businesses effectively reach those markets through advertising and promotion services offered by Creative Productions, Presentations South, Freeman Exhibit Co., Dugan Valva Contess, and Merrimac Public Relations.

Training courses are also available from the AT&T School of Business and Dun & Bradstreet Educational Services designed to help businesses and their employees learn to successfully manage business growth.

In recent months, AT&T has introduced several new packages designed to assist companies in meeting a variety of business goals, including launching a new business and expanding internationally. ■



Ronald Buck, chairman, IVI Publishing Inc., left, Caroline Vanderlip, president, AT&T Personal Online Services, and John Petrillo, executive vice president, Strategy and New Offer Development, announce a service that will help consumers find information on the Internet.

Personal Online Services to Make Internet Access Easy

By Collins Yearwood

IMAGINE A DICTIONARY IN which the words are randomly listed. Now, imagine trying to look something up. This is pretty much what searching the Internet today is like. Recognizing that, AT&T has introduced Personal Online Services, which will help consumers find the information they want when they want it without having to be expert "net surfers."

Unveiled Oct. 30 at the Internet World trade show in Boston, AT&T Personal Online Services will make available a range of content services for individuals and families. Caroline Vanderlip is president of the new organization.

Health and Fitness Info

Available in mid-1996, the first consumer content service will be devoted to health and fitness topics provided by IVI Publishing Inc. Based in Minneapolis, IVI is the digital publisher of the "Mayo Clinic Family Health Book" on CD-ROM and *Healthnews*, the sister publication of the *New England Journal of Medicine*. AT&T will introduce more content services later this year.

The health and fitness service will help people find information on everything from dieting and nutrition to workouts, first aid, mental health, and the origins, effects and treatment of medical conditions—plus the names of local, regional and national specialists, support groups, spas, health clubs and other resources. In addition, Personal Online Services will track users' interests in order to provide specialized offerings and deliver personalized and localized content to meet their immediate needs and interests from a selection of specific, consumer-oriented content categories.

"AT&T's Personal Online Services will bring people within a mouse-click of timely information, localized for their community, customized to their particular situation and accessible through an intuitive interface," said Vanderlip. "Personal Online Services will be built on an architecture that is open, pricing that is flexible, presentation that is state-of-the-art and information that is compelling."

Customers will connect to Personal Online Services from any on-line service that offers access to the Internet's World Wide Web, including AT&T *WorldNet* Services, and be able to use any Web browser.

For content providers, Personal Online Services is an opportunity to place their material under their brands in a consumer-friendly Internet environment, while benefiting from attractive revenue-sharing arrangements with AT&T; multiple revenue sources and technical expertise to facilitate getting their content on line.

"Personal Online Services is AT&T's next step in our drive to make the Internet as easy to use and as useful as the telephone," said John Petrillo, executive vice president, Strategy and New Offer Development, and leader of AT&T's emerging presence in the on-line marketplace.

In Other News ...

In a separate announcement at Internet World, AT&T introduced a beta test of dial-up Internet services in 110 cities. The trials are in preparation for commercial availability in the first quarter of 1996. The company also announced plans to integrate the AT&T WorldNet Dial-up Internet Service with Novell's PerfectOffice™ suite of desktop applications. The integration of AT&T WorldNet Service software will make it easier for people to use the Internet by giving them one-button access from PerfectOffice. ■

HISPA Conference Speakers Say Change Means Opportunity

By Collins Yearwood

"Making Our Vision a Reality" was the theme of the ninth annual HISPA (Hispanic Association of AT&T Employees) conference in Phoenix, but everyone's focus was on the changes in the wind.

NEARLY ALL THE SPEAKERS at the conference in some way addressed AT&T's forthcoming restructuring and its impact on individual employees. Many conferees wondered what would be the fate of Employee Resource Groups (ERGs) and HISPA in particular.

HISPA President Ray Bonachea saw no reason for employees to fear the coming restructuring. "There will be many opportunities," he said, "for us as employee resource groups, and for us as HISPA to influence what happens during AT&T's breakup.

"We have to remain vigilant that the words that have been said by the chairman and Hal Burlingame do, in fact, become a reality—that we enhance diversity. We want to make sure that we have input into the decision-making process so that a diversity of thinking is considered." Bonachea is managing director, Customer Business Management, Global Public Networks, AT&T Network Systems Group, Coral Gables, Fla.

When asked if the future of HISPA itself was cloudy, or if it too would have to undergo "trivestiture," Bonachea said it was still not clear. "We'll have three boards of directors, and our chances will be tripled" to get a Hispanic on the board of directors, a HISPA goal, he said.

But what about maintaining the organization's unity across three new companies? "Whether we split is a decision to be made," said Bonachea. "It's not a major issue because we can divide or combine ourselves in three months—that is how long it would

See HISPA page 8

FELIX BRYANT/AT&T MEDIA SERVICES

New York journalist Felipe Luciano conducted workshops entitled "Latinos and the Media" and "Multicultural Relationships—Standing Together, Standing Alone."

NSG Equipment Used To Place Historic Calls

By Ollie Hartsfield

TWO MAJOR CHECKPOINTS on the Information Superhighway were passed last month—and AT&T Network Systems Group (NSG) equipment made it possible. On Oct. 30, Southern New England Telephone (SNET) received the first telephone customer call in the United States over a hybrid fiber coax (HFC) network—using NSG's equipment. On Oct. 31, PCS PrimeCo placed the first wireless PCS (personal communications services) calls ever made over a commercially installed system using Code Division Multiple Access (CDMA) air interface in the 1.9 GHz spectrum. One of the PrimeCo calls used NSG's PCS system.

Creating a Hybrid

SNET activated a portion of its broadband network in Stamford, Conn. using NSG's *HFC-2000* Broadband Access System. HFC combines optical fiber and coaxial cable in the same network as an economical way of delivering information, entertainment and telephone services to business and residential customers. NSG won a contract last year to supply and build I-SNET, Connecticut's Information Superhighway.

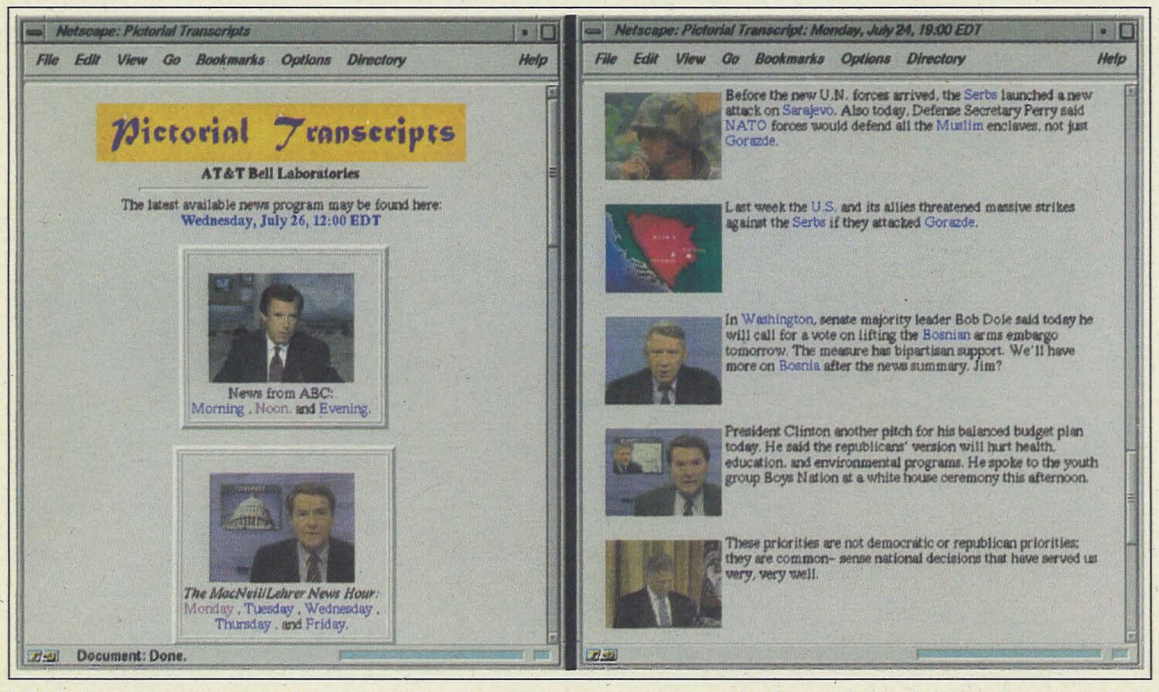
"NSG's equipment is helping SNET bring Connecticut customers one step closer to reaping the benefits of access to a broadband network," said Carly Fiorina, president, Network Systems, North American region.

Going Wireless

PrimeCo executives used NSG's PCS CDMA mini-cell connected to a *5ESS*-2000 Switch to place their historic PCS call from Houston to Arlington, Va.

PrimeCo, a partnership of AirTouch, Bell Atlantic, NYNEX and U.S. West, is one of many companies racing to build nationwide digital wireless networks to meet the demand for the emerging PCS market. In August, NSG won a contract, potentially worth a half billion dollars, to build a wireless PCS system in six of PrimeCo's 11 markets, including Houston. ■

Bell Labs Technology Condenses, Transcribes Video for Internet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AT&T Bell Laboratories
The latest available news program may be found here:
Wednesday, July 26, 12:00 EDT
News from ABC:
Morning , Noon, and Evening.
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Before the new U.N. forces arrived, the Serbs launched a new attack on Sarajevo. Also today, Defense Secretary Perry said NATO forces would defend all the Muslim enclaves, not just Gorazde.
Last week the U.S. and its allies threatened massive strikes against the Serbs if they attacked Gorazde.
In Washington, senate majority leader Bob Dole said today he will call for a vote on lifting the Bosnian arms embargo tomorrow. The measure has bipartisan support. We'll have more on Bosnia after the news summary, Jim?
President Clinton another pitch for his balanced budget plan today. He said the republicans' version will hurt health, education, and environmental programs. He spoke to the youth group Boys Nation at a white house ceremony this afternoon.
These priorities are not democratic or republican priorities; they are common- sense national decisions that have served us very, very well.

Bell Labs' Pictorial Transcripts technology automatically condenses video programs into text and still images that can be delivered over the Internet.

BY OLLIE HARTSFIELD

IMAGINE WATCHING YOUR favorite news program on television, and then, within minutes, being able to download a transcript of it onto your computer—complete with still-frame pictures from the original video..

AT&T Bell Laboratories scientists have invented a technology that makes information from video programs just that accessible. The "Pictorial Transcripts" technology, developed by researchers Behzad Shahraray and David Gibbon, automatically converts television programs into text and still-frame transcripts on the World Wide Web.

The transcripts are achieved with computer programs that analyze the content of video frames and closed-caption text. The program identifies key images to represent the visual content of the program, extracts the closed-caption text from the video and converts it into HTML—the language of the World Wide Web.

With this technology, network television stations, corporations and individuals could make condensed versions of their closed-caption video programs available around the world—within minutes after the program aired.

Proximity Breeds Innovation

The idea for Pictorial Transcripts began to form as Shahraray and Gibbon—both in Holmdel, N.J.—worked side-by-side on separate projects. Shahraray was working on a process called content-based sampling—condensing full-motion video into still picture frames that represent a segment of video. Gibbon was extracting closed-caption signals from video. As they talked and shared their ideas, the researchers realized the two technologies could be combined for a new purpose. Soliciting help from Bell Labs linguistics experts, the pair refined the technology.

"This was a combination of invention and innovation," says Shahraray. "The work on content-based sampling was the invention. Taking that algorithm and combining it with the text and the linguistic processes in a way that people can use now—that was the innovation."

Extending Usefulness of Video

Gibbon and Shahraray believe Pictorial Transcripts will extend the usefulness and accessibility of video programs in several ways:

• Information from video programs can be easily and quickly sent over regular telephone lines. (Receiving full-motion video electronically is difficult without high bandwidth networks.)

• Video information becomes more manageable. Instead of fast-forwarding through an hour-long program, users select highlighted key words or scroll through the transcript to quickly find specific information. And an hour-long program that has been condensed into a pictorial transcript can be stored on a single floppy disk.

• Once connected to the Internet, the pictorial transcript technology can automatically create hypertext links to other databases. Clicking on the word "Bosnia" in a pictorial transcript of the evening news would automatically bring up supplemental information on that country. Pictorial transcripts can also serve as "intelligent" tables of contents, allowing a person to replay portions of the original video by clicking on one of the images.

Now, the next stage of work begins, says Shahraray. "We have formed a team to 'harden' the technology. To take it from the research stage to commercialization." ■

Undersea Cable System Now Handling Traffic Across Atlantic

THE NEWEST TRANS-Atlantic undersea fiber-optic cable system, TAT-12, has begun transmitting telecommunications traffic among points in the United States, the United Kingdom and France. The 6,500 kilometer TAT-12 comprises the first three segments of a larger system, the 13,000-kilometer TAT 12/13 Cable Network, which will be completed in October 1996.

When complete, the system will form a self-healing network, capable of restoring service without dropping a call. TAT-12 runs from Long Island, N.Y., to Greenhill, R.I., across the Atlantic Ocean to Lands End in the United Kingdom. From there, it goes to Penmarch, France. The final link, TAT-13, will cross the Atlantic between Penmarch and Long Island, completing a loop network at a total cost of approximately $740 million.

The TAT 12/13 Cable Network is owned by a consortium of more than 50 telecommunications carriers from 38 countries, including AT&T. AT&T Submarine Systems is one of the major suppliers of the network, which will be the first across the Atlantic to use optical amplification, a technology that could double or triple the capacity of the network. ■

GLOBAL VIEW

ASIA/PACIFIC

HONG KONG—COMMUNICATIONS SERVICES GROUP (CSG) has introduced a range of Internet services and the first-ever Internet "backbone" network in Asia. AT&T Internet Services, available immediately in Hong Kong and later this year in Australia, give businesses and Internet access providers easy and reliable access to the Internet. The AT&T Internet backbone network will provide the first dedicated, high-quality, intra-regional connection for Internet customers in Australia, Hong Kong and Japan. CSG also is offering consulting services to help Asian businesses set up sites for electronic commerce on the Internet's World Wide Web.

AUSTRALIA

QUEENSLAND—NETWORK SYSTEMS GROUP (NSG) has opened a plant here to meet customer demand for high-performance communications products being sold in the Asia/Pacific market. The highly automated, $14.5 million factory in the Brisbane suburb of Pinkenba produces cable for NSG's *SYSTIMAX* Structured Cabling Systems (SCS), which are used in private networks to transport voice, data, image and sensor control signals within and between buildings.

AUSTRIA

VIENNA—GLOBAL INFORMATION SOLUTIONS (GIS) is helping mega-retailer Metro, Europe's equivalent to Wal-Mart, track customer buying patterns at its head office here. Metro purchased an AT&T System 3600 massively parallel processing system, valued at $4.2 million, for a data-warehousing solution. The system is enabling Metro to migrate away from IBM host systems to a modern, Windows™/NT-based, client/server environment. The order marks the first successful cross-selling effort among GIS teams in Germany, Austria and Switzerland. The combined team, based in Munich, is targeting the 10 largest accounts in the retail, financial and communications industries. The System 3600 in Vienna will be operational by February 1996. GIS also plans to deploy the system to Metro stores in other European cities and in China next year.

BRAZIL

RIO DE JANEIRO—AT&T TRIDOM has been selected by Empresa Brasileira De Telecomunicacoes (EMBRATEL), Brazil's PTT, to provide it with very small aperture terminals, hub stations and technical support for shared-hub satellite communications service. Using the equipment and services provided by AT&T Tridom, EMBRATEL will be able to provide fast, cost-effective data communications services to customers around the country, while managing their entire system from a central location in Rio de Janeiro.

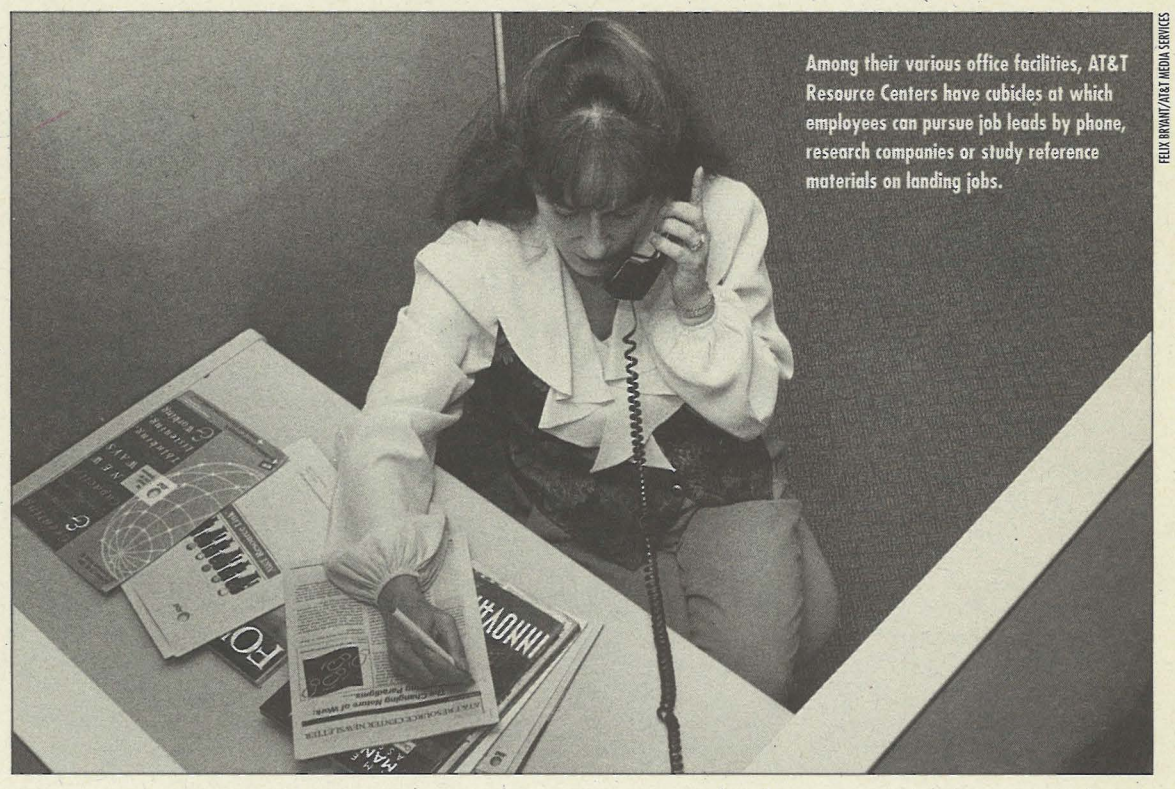
CANADA

LONDON, ONTARIO—An AT&T-led consortium is helping Canada Trust, the country's dominant telephone banking institution, transform its call center into a center of expertise. Once operational, the center will be able to deploy discount stock quote services using voice recognition technology, redirect consumer calls from branches to a centralized location, and perform retail banking functions such as transfers, bill payments and other inquiries in both an attended and an automated environment. The $8 million contract includes products and services from Global Information Solutions, Global Business Communication Systems and several software providers.

MEXICO

MEXICO CITY—AT&T MEXICO and Alfa have filed with the Secretariat Communication y Transportation to obtain a license to offer long-distance services in Mexico. The two companies also have incorporated a joint company that will offer telecommunications services to Mexican consumers. Alfa holds 51 percent of the company's total shares; AT&T holds the remainder. The incorporation allows the companies to continue the formal filing process necessary to obtain a license, and to initiate access negotiations with Telmex. Naming of the company and its leader will be delayed until clear market rules are laid out and pending negotiations are concluded.

At Resource Centers, The Job Is To Find a Job



Among their various office facilities, AT&T Resource Centers have cubicles at which employees can pursue job leads by phone, research companies or study reference materials on landing jobs.

FELIX BRYANT/AT&T MEDIA SERVICES

By Ed Lopez

REGARDLESS OF ONE'S experience, the task of finding a job can be awkward and disconcerting.

Janice Cooley, manager of the AT&T Resource Center in Murray Hill, N.J., recalls a reaction by one employee who was urged to engage in aggressive networking. "I'm not a political person," the employee said. "I just come into work and do a job."

Cooley said the response misses the whole point of a job search. "Your job is to find a job," she said. "When you're in search of a job it's not a plague. You need to let everyone know."

And Cooley should know. The AT&T Resource Center specializes in helping both management and occupational employees who leave AT&T to become as marketable as possible in a job search.

"We try to provide people with a safe landing," she noted.

There are seven existing AT&T Resource Centers with more than 53,000 square feet of facilities throughout the country: Murray Hill, Chicago, Denver, Boston, Atlanta, Dayton, Ohio, and Pleasanton, Calif. These centers can be expanded or new satellite locations added very quickly should employees need them.

At Your Service

The centers are available for use by employees at any time, not just when they may find themselves at risk. Upon obtaining approval, employees may attend workshops or seminars at the centers, just as they may attend courses at the AT&T School of Business.

In the current restructuring, additional volume is expected at the centers because, unlike usual past practices, they will be available to people who volunteer to leave the company.

Typically, about 75 percent to 80 percent of employees who are eligible to use the centers take advantage of them, said Jim Meadows, Human Resources vice president, Career Placement Alternatives. "The ones who don't either have something lined up already or plan to retire."

Job-Hunting Factories

The AT&T Resource Centers are a cooperative effort of AT&T, the Communications Workers of America and the International Brotherhood of Electrical Workers. Each Resource Center has at least one union-appointed representative to provide ongoing consultation and support for the particular needs of occupational employees.

The centers have the ability to quickly expand by contracting with Lee, Hecht, Harrison, one of the country's largest outplacement consulting firms, and several other companies. Cooley said resource center counselors are familiar with AT&T procedures and networks, and some employees feel more at ease talking to counselors from outside the company.

The resource centers are virtual job-hunting factories. They offer a wide range of services, workshops, use of equipment, employment databases and special seminars.

Office equipment and services include computers, a reference library, a message center, telephones, fax machines, copiers and mail services.

Computers have popular software such as Word for Windows® and PowerPoint® to prepare resumes and cover letters. But because the centers don't provide software training, employees are encouraged to learn how to use software packages beforehand.

Workshops and special seminars are available on such topics as Winning Resumes, Interviewing Techniques, Self Employment, Networking Strategies, Career Decision-Making, and Financial Planning.

Among the employment databases at the centers is a national, on-line job bank for external leads called AT&T Lead Connections. Job seekers are matched with leads by such criteria as job code, proficiency level, education, geographic preference and minimum salary requirements.

For employees who live outside a resource center area, there is an 800 number for career transition services such as unlimited counseling, resume production, external job leads and material from the resource libraries.

One of the key services at the resource centers is how to write resumes. "Some people will say 'I already have a resume,' but they haven't done a strong, competitive resume in some time," Cooley said. And while some resumes may be fine for a job search inside AT&T, outside hiring managers may find them confusing or unclear.

Marketing Yourself

The centers also offer a Professional Image workshop to increase awareness of how important bearing, grooming, dress and image can be in a successful job search. One topic is "Making Your Only First Impression Count."

A special seminar on interviewing skills includes interview role-playing, videotaping simulated interviews and critiques of a job-hunter's performance.

"Many people are not comfortable with how to sell themselves," Cooley said. "They are comfortable with selling work groups, but not what the individual brings to the table."

For the location of the nearest Resource Center, call 800-992-2478, Prompt #2. ■

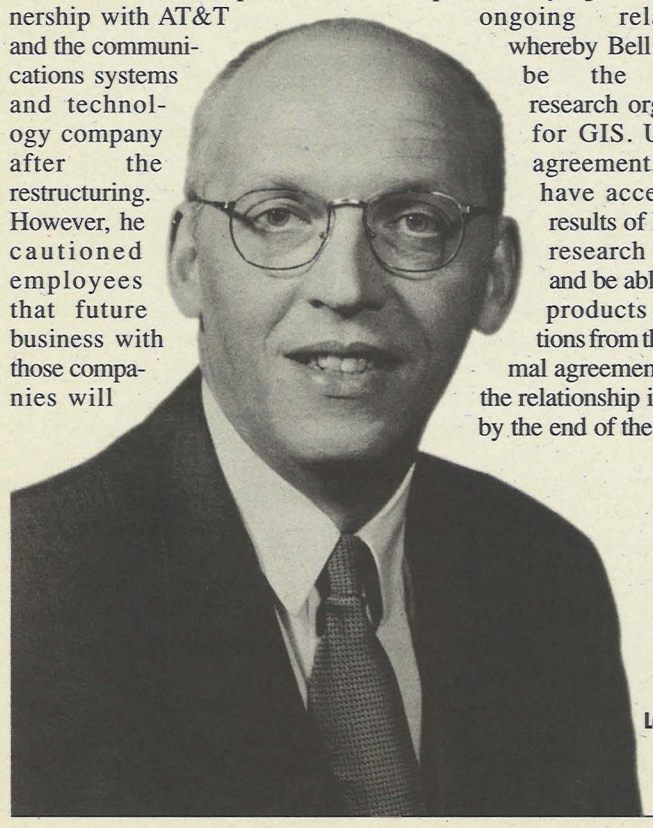
Nyberg Outlines Initiatives Critical to GIS's Turnaround

By Anne Wainscott

"I HAVE BEEN VERY OPTIMistic about this company since I came here, and I intend to see it through. I hope that you feel motivated to help me to turn this company around because it can be turned around."

That's what Global Information Solutions (GIS) CEO Lars Nyberg told employees during a recent meeting broadcast to locations worldwide.

Nyberg expressed optimism for GIS's continued partnership with AT&T and the communications systems and technology company after the restructuring. However, he cautioned employees that future business with those companies will depend on GIS's performance, not on past links. "Our relationship will be totally dependent on our performance; those people are going to buy from the companies they think are best suppliers, and we'd better make sure that the decision is GIS," he said.



Lars Nyberg

The GIS leader did foresee OEM agreements being forged between business units with which GIS has significant relationships, such as Global Business Communications Systems. And GIS and Bell Laboratories have reached a preliminary agreement for an ongoing relationship whereby Bell Labs will be the primary research organization for GIS. Under the agreement, GIS will have access to the results of Bell Labs' research programs and be able to derive products and solutions from them. A formal agreement detailing the relationship is expected by the end of the year.

New Focus

Nyberg called AT&T's restructuring positive for all three companies, saying that it will make GIS easier to operate. Nyberg noted that he spends at least 30 percent of his time trying to coordinate GIS's activities with other parts of AT&T.

GIS's restructuring is well underway. The company exited the volume PC business and now provides computer systems and services to customers in all industries, with industry-specific platforms and solutions for customers in the retail, financial and communications industries. The foundation for GIS's computer business is the recently launched *WorldMark* server family, which builds upon the company's leadership position in the commercial massively parallel processing market.

Process Improvement Stressed

To bring about a speedy and permanent turnaround to the business, Nyberg said employees need to commit themselves to four initiatives—focus, accountability, expense reduction and process improvement. The job cuts and other cost-cutting steps will save GIS an estimated $700 million in 1996. While acknowledging those savings, Nyberg stressed that cost reductions alone won't make a difference long term.

"The solution is to grow the company ... and that's where process improvement plays an extremely important role," he said.

Nyberg concluded his remarks by encouraging people to act with a sense of urgency and to take action now to return GIS to profitability.

"We have time, but we don't have much time," he said. ■

AT&T Microelectronics was chosen to help the EPA find new ways of achieving environmental excellence. Moments after the official announcement, Microelectronics President Curt Crawford (center) stands outside the old Executive Building in Washington, D.C. with AT&T environmental attorney Debbie Sabatini Hennelly and Microelectronics environment and safety officer Ted Polakowski.

Microelectronics Helping EPA Streamline Regulatory Process

By Ollie Hartsfield

AT A WHITE HOUSE CEREmony on Nov. 3, President Clinton and Vice President Gore announced the selection of AT&T Microelectronics by the U.S. Environmental Protection Agency (EPA) for participation in the agency's Project XL (Excellence in Leadership). Project XL is a White House-driven effort to streamline environmental regulation while maintaining high standards for environmental protection. EPA and project participants will cooperate to identify innovative "outside-the-box" strategies for achieving environmental excellence.

The EPA selected proposals from Microelectronics and five other corporations to initiate this effort to move beyond traditional regulatory approaches and develop alternative compliance measures that protect the environment while reducing burdensome and expensive "red tape."

Applying Quality Concepts

The foundation of Microelectronics' pilot program is the new ISO 14001 international environmental management systems standards. ISO 14001, currently being developed by the International Standards Organization, is expected to emerge as the worldwide standard for environmental operations, similar to the ISO 9000 standard for quality.

Like ISO 9000, the ISO 14001 standard is likely to become a condition for doing business internationally in the communications and electronics equipment markets. ISO 14001 applies the concepts of "total quality management" to the environmental arena by encouraging companies to integrate environmental concerns into everyday operations.

Microelectronics will seek ISO 14001 certification for all of its manufacturing locations worldwide and will initiate regulatory relief demonstration projects at several of its U.S. facilities. In addition, Microelectronics will establish specific pollution prevention targets and seek enforcement discretion benefits from the EPA and the states in which Microelectronics operates.

If Microelectronics' approach is adopted by the EPA, other manufacturing business units—and potentially other companies—could follow this lead and use the ISO 14001 certification process to seek similar regulatory relief and enforcement discretion.

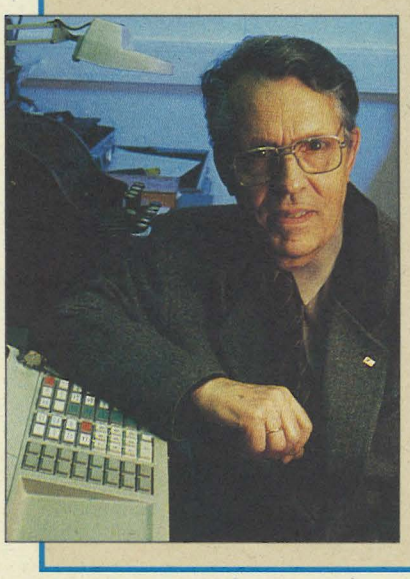
Simpler is Better

Finding ways to simplify the regulatory process, without sacrificing environmental excellence, has great appeal for the electronics and communications industries. The mountains of documentation, and the lengthy permit process currently required, make it difficult for industry to make the quick changes it needs to keep pace with the marketplace.

"Our project will demonstrate that it is possible to achieve environmental excellence while maintaining global competitiveness—a key issue for the 1990s," said Curt Crawford, president, Microelectronics.

Microelectronics has already gone beyond the scope of current environmental regulations to improve its environmental operations. The business unit earned the EPA Agency Star Ally status and was awarded the 1994 Texas Governor's Award for Environmental Excellence. ■

GIS Technician Honored for Long Service



BREDO VIERVANG, A 50-year veteran of AT&T Global Information Solutions in Norway, was recognized recently for his long service with a Royal Norwegian Order of Merit. The technician received the silver medal from His Royal Highness Harald V, at a reception in Oslo's royal palace. Viervang, 66, was hired as a cash-register technician by NCR in Oslo in 1945. Today, he repairs and overhauls PCs and modern cash terminals. He will retire next year. "AT&T and NCR have been great companies to work for," he said. ■

AT&T to Spend $150M on Nation's Schools

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Kerkeslager said, "Critical mass has been reached—not only with Internet and computers, but also with the receptivity of the professionals in education and the receptivity at the national, state and local government level—to seriously look at the way these technology-based tools can help education."

Part of AT&T's program includes $50 million from the AT&T Foundation to support professional development for teachers, with an emphasis on effective use of technology for teaching and learning. This support would include information such as case studies of effective working models, roadmaps to products and services and other resource materials.

The company supports hundreds of education initiatives across the country, including the AT&T Teachers and Technology Institute, an annual series of seminars to help teachers understand how to use technology in the classrooms. In the 11 years since divestiture, AT&T has donated $500 million toward education. Kerkeslager hopes other corporations and institutions will follow AT&T's lead.

"We need much more effort like this across the nation," he said. "AT&T is a leader by showing how it should be done, the kinds of things that have to be done and by showing that they're effective. I would expect others would pick up and support this effort."

In addition to technology, AT&T also will provide technical assistance for teachers, model programs, mentoring, and curriculum and lesson plans to help teachers integrate technology into the classroom.

"This won't be a case of dropping the technology at the school-house door and walking away, Allen said. The AT&T Learning Network is not just a donation to America's schools. It is a partnership."

Schools and educators can get more information by calling 800-809-1097. ■

Microelectronics and Cirrus Logic Establish Strategic Partnership

By Joanna Schooler

AS COMPANIES INCREASingly look to strategic partnerships to meet the unprecedented demand for semiconductors, AT&T Microelectronics and Cirrus Logic Inc. have announced a joint manufacturing agreement that will enhance each company's ability to supply customers worldwide with advanced integrated circuits.

The venture will operate in a newly constructed cleanroom planned for Microelectronics' Orlando, Fla. facility. Slated to begin production by early 1997, the operation will process about 20,000 eight-inch silicon wafers a month, utilizing 0.35 and 0.25-micron technology.

Microelectronics will own 60 percent of the joint venture; Cirrus Logic will own 40 percent. The venture will operate as a separate entity under the direction of the partners through a five-person board of directors, with three directors from Microelectronics and two from Cirrus Logic. The companies will share the production output equally.

"The demand for our companies' chips is outpacing our ability to produce them, and we don't project this demand to let up any time soon. The most efficient way to meet this challenge is to partner with another company. We're fortunate to have found a partner whose commitment to technology and world-class manufacturing matches our own," said John Dickson, vice president, Integrated Circuits Group, Microelectronics, at a press conference in Orlando.

Overall, the expansion will more than double the existing plant's current output. It also is expected to create about 600 new jobs within the facility, which will be staffed by Microelectronics and financed by the joint venture. The agreement does not include product licenses or exchanges. The venture will be named before operations begin.

Both Microelectronics' and Cirrus Logic's semiconductor sales are exceeding the industry's current 40-percent growth rate. Under the agreement, which has an initial term of 10 years, the companies will share the expense of the approximately $600 million expansion of Microelectronics' Orlando Works. ■

In celebration of the *Trimline* telephone's anniversary, AT&T is offering the 30th Anniversary Trimline Telephone 210 with a commemorative medallion.

Trimline Telephone Celebrates 30 Years as an American Classic

BY COLLINS YEARWOOD

TAKING ITS PLACE ALONGside Mom, apple pie and Coca-Cola®, the AT&T *Trimline* telephone recently won recognition as a symbol of America.

The Trimline telephone, 30 years old and still going strong, gives a warm-and-fuzzy feeling to 70 percent of American consumers, according to a national survey commissioned by AT&T in connection with Trimline's anniversary. Other noted American symbols were Levi's jeans and McDonald's hamburgers.

Consumers' favorite features of the AT&T Trimline telephone included the buttons on the handset, the size of the phone and its lighted dial. One in 10 consumers has given the AT&T Trimline telephone as a gift. Almost half the consumers surveyed own an AT&T Trimline phone. Sixty percent have had an AT&T Trimline phone in their home.

More than 100 million Trimline phones have been sold since its introduction in 1965.

The Trimline has received numerous design and quality awards. It is the only communications product to be made part of the Permanent Design Collection of the Museum of Modern Art. *Fortune* magazine cited the phone as one of the 25 best products of 1977, 12 years after its introduction. In 1986 the telephone was selected for the Designed in America exhibit of the U.S. Information Agency. Last month, a leading consumer magazine rated the telephone a "best buy." ■

APA Projected at 5.2 Percent

BASED ON THIRD-QUARTER Economic Value Added (EVA) results of $725 million, the 1995 AT&T Performance Award (APA) payable in March 1996 is currently projected at 5.2 percent of individual earned base salaries for employees in the management pay plan (bands A - D) and the technical personnel plan.

For these plans, results exclude charges incurred by Global Information Solutions relative to its recently announced restructuring. This projection is based on progress thus far in meeting the EVA target of $2.2 billion for 1995.

EVA is the basis on which the APA is determined. It represents AT&T net operating profit after taxes (NOPAT) less a 12 percent charge for the cost of capital used in the business.

"It was an excellent quarter based on strong telecommunications margins," said Maureen Tart, vice president and controller. "But we will have to meet ambitious fourth-quarter performance goals to reach our objectives for the year."

Third-quarter EVA results of $725 million brought the total for the first nine months of 1995 to $1.521 billion. This represents 104 percent of target as of the end of September, as compared with 94 percent of target after the second quarter. An underrun in the average capital deployed in the business contributed significantly to EVA performance.

Look to your business units and divisions for reports on their performance and the status of Unit Performance Awards. Also, the November issue of *Compensation & Benefit Update* has more details about the APA and third-quarter performance. ■

HISPA Speakers Focus on Change

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take to change our bylaws; our assets are meager in comparison to AT&T's."

Enhancing Competitiveness

Jim Cosgrove, vice president and general manager, Business Multimedia Services, reiterated the company's commitment to diversity regardless of the impending breakup. "Our policy in this area has already been written. We remain committed to our employment diversity goals and, by extension, so will our new entities. Enhancing diversity of the workforce in all three new entities will remain a priority, in order to enhance the competitive abilities of each business," Cosgrove said.

But each employee should strive to enhance his or her own individual competitiveness, urged Frank Ianna, vice president and general manager, Network Services Division. "Start thinking about what you need to learn not for this job, but for the next job," Ianna said. "Another form of diversity is diversity of experience inside of AT&T. For those of you who are looking to further your careers inside AT&T, just remember this: be a friend and be a help to those who are asking questions about the areas of business you work in. Share those experiences with them because they're very valuable."

Rodrigo Guerra, president and CEO, Caribbean and Latin American Region, said, that with the restructuring "the concept of region and country as we know it within AT&T will cease to exist in the next year, allowing the formation of a new organization." However, Guerra noted, AT&T's presence in the region has grown and there is great opportunity for further growth. "Until 1986 there were only four AT&T employees in the region," Guerra said. "Today we operate in 37 countries with 10,000 associates. In six of the largest Latin-American countries, the telecommunications and computer market is worth $13 billion and expected to grow to $23 billion by the year 2000."

Self-Help Workshops

The conference also featured a number of self-help workshops and seminars. Some of the topics included AT&T Structure, Career Strategy, Latinos and the Media, Resume Writing and Presentation Skills. Conferees also were treated to a mariachi band and were serenaded by elementary school children in costumes representing an array of Latino cultures. A few conferees were visibly moved as the kids broke into strains of the Mexican folk song "Cielito Lindo."

Finally, Bonachea delivered his farewell address and handed over the reins to president-elect Guido Minaya, senior account manager, Global Business Communications Systems, Miami. Next year's HISPA conference will be held in Omaha, Neb. ■

Gift-Giving Season Means Discounts For Employees at AT&T Phone Centers

BY COLLINS YEARWOOD

WITH THE GIFT-GIVING SEASON RAPIDLY APPROACHing, smart shoppers should consider some of the offerings at their local AT&T Phone Center stores, which are now featuring certain products at special, employee-only prices.

For example, a Mickey Mouse phone normally priced at $45.49 is available to employees for $34.39. The Speakerphone 880 is available for $94.98, a savings of nearly 25 percent. The 880 is Caller ID capable and has an eight-line screen that displays the time, date, number being dialed and duration of call. Employees can also save 17 percent on both the Sanyo P55 fax and the Brother 630 laser printer.

Clock radios, cordless phones, pagers, answering systems and more are all discounted for employees through Dec. 31, 1995. Employees should act quickly as quantities are limited. AT&T badges and Social Security numbers are required. ■

AT&T

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Editor:
Marianne Carlton
(attmail!macarlton)

Production Manager and Photo Editor:
Vivian Hope
(attmail!vhope)

Production Assistant:
Marilyn Choy
(attmail!mchoy)

Distribution Manager:
Betty Torell
(908-204-2319)

Writers:
Ollie Hartsfield
(attmail!ollie1)
Ed Lopez
(attmail!edlopez)
Suzanne Sidhu
(attmail!ssidhu)
Anne Wainscott
(attmail!awainscott)
Collins Yearwood
(attmail!cyearwood)

Design:
M.J.Ng Design
New York City

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call *908-221-4466*

send electronic mail to:
attmail!talktous

use fax number:
908-204-2118

or mail to:
AT&T News
175 Morristown Road
Basking Ridge, NJ 07920

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